

Application No.: 09/917,700

Docket No.: 21994-00026-US

REMARKS

The Office Action and prior art relied upon have been carefully considered. In an effort to expedite the prosecution, claims 1, 2 and 8 have been canceled. Claims 9 and 10 have been added to clarify the subject matter of the present recording and reproducing apparatus (claim 9) and the reproducing apparatus (claim 10).

Claims 2-8 were rejected under 35 U.S.C. § 112 as directed to a single means. All the claims present in the application include detecting means and decoding means so that further rejection on this ground is not anticipated.

Claims 1-4, 6 and 8 were rejected under 35 U.S.C. § 102(e) as being anticipated by Endoh (US 6,487,164).

New claims 9 and 10 of the present invention relates to a pit signal reproduced from the pit recording area 2 which is detected by a tangential push-pull signal. The tangential push-pull signal is detected by a light detector 11 which has a pattern shown in Fig. 3. The pattern comprises four areas A, B, C and D in a direction of a tangential line of the track and in a tangential direction orthogonal to the tangential line. The tangential push-pull signal is the signal detected by the difference of two areas divided in the tangential direction orthogonal to the track and described as $(A+D) - (B+C)$ (see page 9, lines 15-22).

Endoh et al. (US 6,487,164) discloses a pit reading signal which is obtained by reading an information signal written with pits according to the expression (2): $(A+B+C+D)$. The pit reading signal is a sum signal and is detected by a first photosensor 80a of a photodetector 80 (see column 13, lines 58-63, Fig 6.).

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Endoh et al. also discloses a differential push-pull signal represented by the expression (5): $\{(A+D)-(B+C)\} - \alpha (E-F)+(G-H)$. The differential push-pull signal is used as a tracking error signal (see column 14, lines 21-36). Thus, the differential push-pull signal is not used as a pit reading signal and the expression (5) taught by Endoh et al. is different from the tangential push-pull signal in the present invention.

Still further, Endoh et al. fails to teach the use of the claimed tangential push-pull signal.

Claims 5 and 7 were rejected under 35 U.S.C. § 103 as being unpatentable over Endoh in view of the secondary reference to Umezawsa (US 5,790,492). The secondary reference teaches a partial response system. However, the failure of the primary reference Endoh, as discussed above, renders the combination of references inadequate to demonstrate obviousness.

The Board of Appeals has determined in *Ex parte Skinner*, 2 U.S.P.Q.2d 1789, 1790 (PO Bd. App. 1986) that—

When the incentive to combine the teachings of the references is not readily apparent, it is the duty of the examiner to explain why combination of the reference teachings is proper....Absent such reasons or incentives, the teachings of the references are *not combinable*. (Emphasis added).

For the reasons set forth above, amended claims 3-10 are believed to be allowable over the cited prior art.

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In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 21994-00026-US from which the undersigned is authorized to draw.

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Respectfully submitted,

By 

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